IN THE CLAIMS:

Claims pending

- At time of the action: Claims 1-77.
- After this response: Claims 1-77.

Currently Amended claims Claims 1, 8, 20, 27, 34, 43, 44, 55, and 66.

1. (Currently Amended) A system for interfacing with at least one node in a Fibre Channel network, the system comprising:

an input interface ~~couplable~~ to receive a plurality of frames of data, ~~the frames of data being at least one of~~ transmitted and/or received at the at least one node in the Fibre Channel network; and

an output interface ~~couplable~~ to provide the received frames of data to a device, wherein at least one of the input interface and the output interface is further configured to time tag the received plurality of frames of data prior to the providing of the frames of data to the device, and

wherein the device includes a recorder to record the frames of data transmitted and received at the at least one node in the Fibre Channel network.

2. (Original) The system of Claim 1, wherein the input interface includes an optical connection couplable to the node of the Fibre Channel network.

3. (Previously Presented) The system of Claim 1, wherein the output interface is coupled to the input interface and configured to receive the plurality of frames of data from the input interface, the output interface being configured to perform a low fill function such that, in a normal mode of operation, when fibre channel data is unavailable the low fill function maintains a transmission rate of the plurality of frames transmitted from the output interface.

4. (Previously Presented) The system of Claim 3, wherein the output interface is further configured such that in a low fill mode of operation, when fibre channel data is unavailable, the low fill function adds a key word to a frame wherein the transmission rate of the frame decreases to a predetermined address.

5. (Original) The system of Claim 1, wherein the input interface is programmable to receive frames of data that are transmitted from the node to destination nodes having predetermined addresses.

6. (Original) The system of Claim 1, wherein the input interface is programmable to receive frames of data that are received at the node from source nodes having predetermined addresses.

7. (Previously Presented) The system of Claim 1, wherein the input interface is programmable to thin input frames of data that are transmitted from the node to destination nodes having predetermined addresses.

8. (Currently Amended) The system of Claim 1, wherein the device includes ~~at least one of a recorder and~~ a telemetry device.

9. (Original) The system of Claim 8, wherein the telemetry device includes a real-time monitor.

10. (Original) The system of Claim 1, wherein the output interface is configured to provide the received frames of data in pulse code modulation (PCM) formatted frames.

11. (Original) The system of Claim 10, wherein the output interface is further configured to time stamp the PCM frame.

12. (Original) The system of Claim 10, wherein the output interface is configured to fill the PCM frames with a fill word when a frame of data is not available from the input interface.

13. (Original) The system of Claim 12, wherein the output interface fills the PCM frames to maintain a substantially constant output frame rate.

14. (Original) The system of Claim 12, wherein the output interface fills the PCM frames at a predetermined time interval.

15. (Original) The system of Claim 14, wherein the predetermined time interval is approximately 10 milliseconds.

16. (Original) The system of Claim 1, further comprising a processor coupled to control the input interface and the output interface.

17. (Original) The system of Claim 16, wherein the processor is configured to program the input interface to receive frames of data received at the node from source nodes having predetermined addresses.

18. (Original) The system of Claim 16, wherein the processor is configured to program the input interface to receive frames of data transmitted from the node to destination nodes having predetermined addresses.

19. (Original) The system of Claim 16, wherein the processor is configured to program the output interface to fill PCM frames with a fill word when a frame of data is not available from the input interface.

20. (Currently Amended) A system for interfacing with at least one node in a Fibre Channel network, the system comprising:

an input interface ~~couplable~~ to receive a plurality of frames of data, ~~the frames of data being at least one of~~ transmitted and/or received at the at least one node in the Fibre Channel network;

an output interface ~~couplable~~ to provide the received frames of data in pulse code modulation (PCM) formatted frames to a device, wherein at least one of the input interface and the output interface is further configured to time tag the received plurality of frames of data prior to the providing of the frames of data to the device, and

wherein the device includes a recorder to record the frames of data transmitted and received at the at least one node in the Fibre Channel network; and

a processor coupled to control the input interface and the output interface.

21. (Original) The system of Claim 20, wherein the input interface includes an optical connection couplable to the node of the Fibre Channel network.

22. (Previously Presented) The system of Claim 20, wherein the output interface is coupled to the input interface and configured to receive the plurality of frames of data from the input interface, the output interface being configured to perform a low fill function such that, in a normal mode of operation, when fibre channel data is unavailable the low fill function maintains a transmission rate of the plurality of frames transmitted from the output interface.

23. (Previously Presented) The system of Claim 22, wherein the output interface is further configured such that in a low fill mode of operation, when fibre channel data is unavailable, the low fill function adds a key word to a frame wherein the transmission rate of the frame decreases to a predetermined address.

24. (Original) The system of Claim 20, wherein the input interface is programmable to receive frames of data that are transmitted from the node to destination nodes having predetermined addresses.

25. (Original) The system of Claim 20, wherein the input interface is programmable to receive frames of data that are received at the node from source nodes having predetermined addresses.

26. (Previously Presented) The system of Claim 20, wherein the input interface is programmable to thin input frames of data that are transmitted from the node to destination nodes having predetermined addresses.

27. (Currently Amended) The system of Claim 20, wherein the device includes ~~at least one of a recorder and~~ a telemetry device.

28. (Original) The system of Claim 27, wherein the telemetry device includes a real-time monitor.

29. (Original) The system of Claim 20, wherein the output interface is further configured to time stamp the PCM frame.

30. (Original) The system of Claim 20, wherein the processor is configured to program the output interface to fill the PCM frames with a fill word when a frame of data is not available from the input interface.

31. (Original) The system of Claim 30, wherein the processor is configured to program the output interface to fill the PCM frames to maintain a substantially constant output frame rate.

32. (Original) The system of Claim 30, wherein the processor is configured to program the output interface to fill the PCM frames at a predetermined time interval.

33. (Original) The system of Claim 32, wherein the predetermined time interval is around 10 milliseconds.

34. (Currently Amended) A Fibre Channel network comprising:

a first port configured to at least one of transmit and receive a plurality of frames of data;

a second port configured to transmit a plurality of frames of data;

a third port configured to at least one of transmit and receive a plurality of frames of data;

a fourth port configured to transmit a plurality of frames of data;

a first network device having a first node coupled to the first port;

at least one second network device having a second node coupled to the third port; and

a system operatively coupled to and configured to interface with the first and second nodes, the system including:

an input interface ~~couplable~~ to receive a plurality of frames of data~~, the plurality frames of data being at least one of~~ transmitted and/or received at the at least one node in the Fibre Channel network; and

an output interface ~~couplable~~ to provide the received frames of data to a device, wherein at least one of the input interface and the output interface is further configured to time tag the received plurality of frames of data prior to the providing of the frames of data to the device, and

wherein the device includes a recorder to record the frames of data transmitted and received at the at least one node in the Fibre Channel network.

35. (Original) The network of Claim 34, further comprising a first Fibre Channel switch that includes the first and second ports.

36. (Original) The network of Claim 35, further comprising a second Fibre Channel switch that includes the third and fourth ports.

37. (Original) The network of Claim 34, wherein the input interface includes an optical connection couplable to the node of the Fibre Channel network.

38. (Previously Presented) The network of Claim 34, wherein the output interface is coupled to the input interface and configured to receive the plurality of frames of data from the input interface, the output interface being configured to perform a low fill function such that, in a normal mode of operation, when fibre channel data is unavailable the low fill function maintains a transmission rate of the plurality of frames transmitted from the output interface.

39. (Previously Presented) The network of Claim 38, wherein the output interface is further configured such that in a low fill mode of operation, when fibre channel data is unavailable, the low fill function adds a key word to a frame wherein the transmission rate of the frame decreases to a predetermined address.

40. (Original) The network of Claim 34, wherein the input interface is programmable to receive frames of data that are transmitted from the node to destination nodes having predetermined addresses.

41. (Original) The network of Claim 34, wherein the input interface is programmable to receive frames of data that are received at the node from source nodes having predetermined addresses.

42. (Previously Presented) The network of Claim 34, wherein the input interface is programmable to thin input frames of data that are transmitted from the node to destination nodes having predetermined addresses.

43. (Currently Amended) The ~~system~~ network of Claim 34, wherein the device includes ~~at least one of a recorder and~~ a telemetry device.

44. (Currently Amended) The network of Claim 43, wherein the telemetry device includes a real-time monitor.

45. (Original) The network of Claim 34, wherein the output interface is configured to provide the received frames of data in pulse code modulation (PCM) formatted frames.

46. (Original) The network of Claim 45, wherein the output interface is further configured to time stamp the PCM frame.

47. (Original) The network of Claim 45, wherein the output interface is configured to fill the PCM frames with a fill word when a frame of data is not available from the input interface.

48. (Original) The network of Claim 47, wherein the output interface fills the PCM frames to maintain a substantially constant output frame rate.

49. (Original) The network of Claim 47, wherein the output interface fills the PCM frames at a predetermined time interval.

50. (Original) The network of Claim 49, wherein the predetermined time interval is around 10 milliseconds.

51. (Original) The network of Claim 34, further comprising a processor coupled to control the input interface and the output interface.

52. (Original) The network of Claim 51, wherein the processor is configured to program the input interface to receive frames of data received at the node from source nodes having predetermined addresses.

53. (Original) The network of Claim 51, wherein the processor is configured to program the input interface to receive frames of data transmitted from the node to destination nodes having predetermined addresses.

54. (Original) The network of Claim 51, wherein the processor is configured to program the output interface to fill PCM frames with a fill word when a frame of data is not available from the input interface.

55. (Currently Amended) An aircraft comprising:

a fuselage;

at least one engine;

lift generating surfaces; and

a plurality of avionics units networked with a Fibre Channel network, the network including:

a first port configured to at least one of transmit and receive a plurality of frames of data;

a second port configured to transmit a plurality of frames of data;

a third port configured to at least one of transmit and receive a plurality of frames of data;

a fourth port configured to transmit a plurality of frames of data;

a first network device having a first node coupled to the first port;

at least a second network device having a second node coupled to the third port; and

a system for interfacing with the first and second nodes, the system including:

an input interface ~~couplable~~ to receive a plurality of frames of data, ~~the plurality frames of data being at least one of~~ transmitted and/or received at the at least one node in the Fibre Channel network; and

an output interface ~~couplable~~ to provide the received frames of data to a device, wherein at least one of the input interface and the output interface is further configured to time tag the received plurality of frames of data prior to the providing of the frames of data to the device, and

wherein the device includes a recorder to create a recording of the received plurality of frames of data transmitted and received at the at least one node in the Fibre Channel network.

56. (Original) The aircraft of Claim 55, wherein the aircraft includes a fixed wing aircraft.

57. (Original) The aircraft of Claim 55, wherein the aircraft includes a rotary wing aircraft.

58. (Original) The aircraft of Claim 55, further comprising a first Fibre Channel switch that includes the first and second ports.

59. (Original) The aircraft of Claim 58, further comprising a second Fibre Channel switch that includes the third and fourth ports.

60. (Original) The aircraft of Claim 55, wherein the input interface includes an optical connection couplable to the node of the Fibre Channel network.

61. (Previously Presented) The aircraft of Claim 55, wherein the output interface is coupled to the input interface and configured to receive the plurality of frames of data from the input interface, the output interface being configured to perform a low fill function such that, in a normal mode of operation, when fibre channel data is unavailable the low fill function maintains a transmission rate of the plurality of frames transmitted from the output interface.

62. (Previously Presented) The aircraft of Claim 61, wherein the output interface is further configured such that in a low fill mode of operation, when fibre channel data is unavailable, the low fill function adds a key word to a frame wherein the transmission rate of the frame decreases to a predetermined address.

63. (Original) The aircraft of Claim 55, wherein the input interface is programmable to receive frames of data that are transmitted from the node to destination nodes having predetermined addresses.

64. (Original) The aircraft of Claim 55, wherein the input interface is programmable to receive frames of data that are received at the node from source nodes having predetermined addresses.

65. (Previously Presented) The aircraft of Claim 55, wherein the input interface is programmable to thin input frames of data that are transmitted from the node to destination nodes having predetermined addresses.

66. (Currently Amended) The aircraft of Claim 55, wherein the device includes ~~at least one of a recorder and~~ a telemetry device.

67. (Original) The aircraft of Claim 66, wherein the telemetry device includes a real-time monitor.

68. (Original) The aircraft of Claim 55, wherein the output interface is configured to provide the received frames of data in pulse code modulation (PCM) formatted frames.

69. (Original) The aircraft of Claim 68, wherein the output interface is further configured to time stamp the PCM frame.

70. (Original) The aircraft of Claim 68, wherein the output interface is configured to fill the PCM frames with a fill word when a frame of data is not available from the input interface.

71. (Original) The aircraft of Claim 70, wherein the output interface fills the PCM frames to maintain a substantially constant output frame rate.

72. (Original) The aircraft of Claim 70, wherein the output interface fills the PCM frames at a predetermined time interval.

73. (Original) The aircraft of Claim 72, wherein the predetermined time interval is around 10 milliseconds.

74. (Original) The aircraft of Claim 55, further comprising a processor coupled to control the input interface and the output interface.

75. (Original) The aircraft of Claim 74, wherein the processor is configured to program the input interface to receive frames of data received at the node from source nodes having predetermined addresses.

76. (Original) The aircraft of Claim 74, wherein the processor is configured to program the input interface to receive frames of data transmitted from the node to destination nodes having predetermined addresses.

77. (Original) The aircraft of Claim 74, wherein the processor is configured to program the output interface to fill PCM frames with a fill word when a frame of data is not available from the input interface.